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EXAMINER

DANG, DUY M

ART UNIT PAPER NUMBER

2624

DATE MAILED: 11/29/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/022,122

Applicant(s)

DEKEL ET AL.

Examiner

Duy M. Dang

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12/8/05.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 6,10,16,20,26 and 30-54 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 6,10,16,20,26,30-37 and 39-54 is/are rejected.
- 7) ☒ Claim(s) 38 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Applicant's amendments filed on December 8, 2006 have been entered and made of record.
2. Drawings submitted on January 6, 2006 are approved by the examiner.

Claim Rejections - 35 USC § 101

3. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

4. Claims 43-48 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

In this case, claims 26, 30 and 39-42 are directed towards "a computer program." These claims 26, 30 and 39-42 do not necessarily invoke "a computer readable medium" as required to meet 35 USC 101. A "computer program" per se is an abstract and intangible idea that is considered "functional descriptive material." Any such functional descriptive material must be embodied on a computer readable medium in order for it to be statutory. Since the instant claims do not define any such medium, the claimed invention is not directed to statutory subject matter.

Double Patenting

5. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

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Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

6. Claims 6, 10, 16, 20, 26, and 30-33, 35-37, and 39-54 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-42 of U.S. Patent No. 6,314,452 (referred as the patent '452 hereinafter). Although the conflicting claims are not identical, they are not patentably distinct from each other because of the reasons as follows: for example, claims 6, 16, and 26 of the instant application is a broader recitation of the invention and the claim 1 of the patent '452 covers the equivalent subject matter as that of claims 6, 16, and 26 of the instant application. Specifically, each of the limitations of claims 6, 16, and 26 of the instant application is set forth in claim 1 of the patent '452. While the patented claim 1 includes additional limitations not set forth in claims 6, 16, and 26 of the instant application, the use of transitional term "comprising" in the instant claim 6 fails to preclude the possibility of additional elements. Therefore, claims 6, 16, and 26 of the instant application fails to define an invention that is patentably distinct from claim 1 of the patent '452.

Each of dependent claims 31-33, 35-37, and 39-40 of the instant application is also defined by the claims 7 and 9 of the patent '452 so that these claims 31-33, 35-37, and 39-40 of the instant applicant also fail to define a patentably distinct invention.

The statements set forth in paragraph 11 below are incorporated herein.

Claim Rejections - 35 USC § 112

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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8. Claims 6, 10, 31-34, and 43-50 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regard to claim 6, the present of “.” (period) after “threshold” in line 12 renders claim vague and indefinite. Furthermore, the newly added features recited in 13-18 are considered as a redundant limitations because they are similar to the recitations recited in lines 4-9. For prior art comparison, either the recitations recited in lines 4-9 or 13-18 is considered. Likewise, claims 10, 32-34, and 49-50 dependent from claim 6 and thus are rejected for the same reasons as well.

Regard to claim 43, the recitation of “it” (pronoun) in line 1 renders claim vague and indefinite. Likewise, claims 44-48 dependent from claim 43 and thus are rejected for the same reasons as well.

Claim Rejections - 35 USC § 102

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

10. Claims 6, 10, 16, 20, 26, 30-33, 35-37, and 39-54 are rejected under 35 U.S.C. 102(e) as being anticipated by Chang et al. [US Patent No. 6,711,297].

The statements set forth in paragraph 11 below are incorporated hereinafter.

Regarding claim 6, Chang teaches a system for transmitting a sequence of digital images over a communication network [see figure 1, a representative of a communication network

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environment comprising client-server (clients 150 and server 140) for transmitting sequence of digital images (source images 110) over a communication link (160)], comprising:

an image storage device for storing a sequence digital images [see image archive 112 of figure 1 and column 5 lines 7-11, and “storing a pyramidal data structure 130” mentioned in col. 9 lines 25-26];

a client computer coupled to the communication network [see clients 150 coupled to server 140 via communication link 160 according to figure 1], wherein the client computer generates a request for interaction with the sequences of images stored on the image storage device [see “client requests initial view” shown at 410 of figure 4 and mentioned in column 11 lines 6-26 in together with “client application 340” embedded in client 150 of figure 3 and mentioned in column 28-50], the request identifying a region of interest within the sequence of digital images [see image area selected by the user according to column 9 lines 45-47]; and

a server computer coupled to the communication network and the image storage device [see server 140 and image archive 112 of figure 1], wherein the server computer, in response to the request list, transmits to the client computer a number of data block corresponding to the specified quality threshold [see col. 11 line 66 to col. 12 lines 1-5], the server computer adapted to perform the steps of preprocessing said image sequence through a three dimensional wavelet transform, receiving said request list from the client computer and progressively transmitting to said client computer three dimensional coefficient data blocks corresponding to said region of interest [It is noted that the claimed features (i.e., steps of preprocessing..., receiving..., and transmitting...) recited after the phrase “adapted to perform” is nothing more than “intended use clause”. Thus, a recitation of the intended use of the claimed invention must result in a structural

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difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. For a sake of explanation, Chang teaches: three dimensional wavelet transform (see column 7 line 60 to col. 8 line 5. In addition, the pyramidal data structure 130 depicted in figure 1 and mentioned every where in Chang refers to three dimensional wavelet transformed because the level representation from the base to the top of the pyramid servers as a third dimension. Also, the “level of hierarchical representation” mentioned in the abstract and everywhere in Chang is a third dimension in hierarchical representation and thus qualifies as the three dimensional wavelet transform. Lastly, in Chang, source image 110 comprises digitized medical image generated from medical instrumentation such as CATSCAN, see column 5 lines 56-67 and the image generated by using CATSCAN is a three dimensional representation formed by a plurality of cross-sectional views which refers to the so called “image sequence”).

Regarding claims 10, 20 and 30-31, Chang further teaches wherein: the request generated by the client computer further specifies a resolution and the server computer provides a number of data blocks corresponding to the specified quality threshold and resolution [see col. 11 line 50 to col. 12 line 6. Also refer to rejection of claim 6 above].

Regarding claim 16, it is noted that this claim is a method claim reciting features called for in claim 6 above. Therefore, claim 16 is rejected for the same reasons as set forth in claim 6 above.

Regarding claim 26, it is noted that this claim recites similar features called for in claims 6 and 16 above. Therefore, the advanced statements set for forth in claims 6 and 16 are

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incorporated herein. Chang further teaches cache memory (see “cache memory” mentioned in column 14 lines 60-65 and “buffer” depicted at 360 of figure 3) as further required by claim 26.

Regarding claim 43, it is noted that this claim recites a computer program product having similar features called for in claims 6, 16, and 26 above. Thus, the advanced statement as applied to claims 6 and 16 above are incorporated herein. Chang further teaches the use of software [see col. 9 lines 25-32, col. 14 line 62, and col. 18 lines 15-17].

Chang further teaches thumbnail resolution images (i.e., the “512x512” portion of source image “2Kx2K” shown in figure 6B refers to the so called “thumbnail resolution images”. Also lowest resolution representation in hierarchical representation and pyramidal structure refer to the so called “thumbnail resolution images”) as further required by claims 32, 35, 39, and 44; said quality threshold (i.e., the “512x512” portion of source image “2Kx2K” shown in figure 6B in term of resolution quality, it refers to the so called “quality threshold”) as further required by claims 33, 36, 40, 45; and progressive by resolution (see pyramidal structure 130 depicted in figure 1 and decomposition processing depicted at 120 in figure 1) as required by claims 37, 41, and 46.

Regarding claim 42, this claim is rejected for the same reasons as set forth in claim 26 above.

Regarding claims 47-54, these claims are rejected for the same reasons as set forth in other claims above.

Response to Arguments

11. Applicant's arguments filed 12/8/2006 have been fully considered but they are not persuasive.

-In reply to applicant's arguments set forth in page 22 with regard to the Double Patenting Rejection, the rejection is maintained because the patent '452 fairly teaches claimed invention as set forth in the preceding paragraph 5 above. For example, the "resolution" recited in patented claim 1 represents the third dimension of the digital image comprised of low image resolution and high image resolution portions. Thus, the digital image recited in patented claim 1 qualifies as the so called "three dimensional" in instant claim 6, for example. Furthermore, applicant's arguments fail to comply with 37 CFR 1.111(b) because they amount to a general allegation that the claims define a patentable invention without specifically pointing out how the language of the claims patentably distinguishes them from the references. Moreover, applicant's arguments do not comply with 37 CFR 1.111(c) because they do not clearly point out the patentable novelty which he or she thinks the claims present in view of the state of the art disclosed by the references cited or the objections made. Further, they do not show how the amendments avoid such references or objections.

-In reply to applicant's arguments set forth in pages 22-24 with regard to the 102(e) Rejections, the advanced statements set forth in the preceding paragraph 10 is incorporated herein.

Allowable Subject Matter

12. Claim 38 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

13. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.


14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Duy M. Dang whose telephone number is 571-272-7389. The examiner can normally be reached on Monday to Friday from 6:00AM to 2:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew C. Bella can be reached on 571-272-7778. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

dmd
11/06



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PRIMARY EXAMINER